



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,981	07/10/2001	Toru Fujiwara	0941.65686	7925

7590 10/27/2005

Patrick G. Burns, Esq.
GREER, BURNS & CRAIN, LTD.
Suite 2500
300 South Wacker Dr.
Chicago, IL 60606

EXAMINER

MEEK, JACOB M

ART UNIT PAPER NUMBER

2637

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,981

Applicant(s)

FUJIWARA ET AL.

Examiner

Jacob Meek

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9, 11 - 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 9, 10 - 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The indicated allowability of claims 3, 4, 9, 10 is withdrawn in view of the newly discovered reference(s) to Viterbi decoding technique and apparatus. Rejections based on the newly cited reference(s) follow.
2. Examiner notes that upon further review of admitted prior art, that figure 3 appears to be substantially applicable to the claims in application in terms of structure and function. Examiner requests that source of prior art be identified so that a proper review can be conducted. Foreign Patents presented in IDS do not appear to disclose the structure of figure 3 or its functionality. From a structural standpoint, figure 3 appears to anticipate applicant's claimed invention. In order to assess properly, the description of apparatus disclosed as prior art in figure 3 needs to be assessed so that functional differences with applicant's claimed invention can be fully determined. Applicant's description of prior art is appreciated, but identification of specific citation is needed in order to properly understand differences in claimed invention and prior art.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2637

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 2, 4 – 8, and 10 - 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al (US-6,603,722).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regard to claim 1, Taguchi discloses a method for data reproduction for reproducing data corresponding to a state transition pass selected as being most likely according to a Viterbi decoding algorithm from a reproduction symbol supplied from a recording medium (see abstract), the method comprising the steps of: detecting at least one state of reproduction signal according to data used for selecting state transition pass (see column 9, line 58 – column 9, line 5), calculating an average values of reproduction signal in state detected by step of detecting (see figure 11, 152 and column 13, lines 56 –column 14, line 3); determining at least one expected value according to average value (see figure 11, 152 and column 13, lines 56 –column 14, line 3); supplying expected value to Viterbi detector such that expected value is used in Viterbi decoding algorithm (see column 9. lines 17 – 26); and following a fluctuation amount of a DC component of reproduction signal according to average value (see figure 4, 16 and column 14, lines 4 – 20).

With regard to claim 2, Taguchi discloses a data reproduction method wherein step of detecting includes the steps of: outputting data supplied to a pass memory of a Viterbi detector as data used for selecting state transition pass (see figure 4, 11 and column 12, 1 – 8); and producing a state signal indicating state according to data used for selecting state transition pass (column 12, lines 42 – 63).

With regard to claim 4, Taguchi discloses a data reproduction method wherein step of following includes the steps of: determining at least one expected value according to average value (see column 14, lines 7 – 19), the expected value being used in Viterbi decoding algorithm (see figure 4, 10, 14), and supplying expected value to Viterbi detector (see column 13, lines 39 – 42).

With regard to claim 5, Taguchi discloses a data reproduction method wherein step of following includes adjusting the fluctuation amount of the DC component according to average value (see column 14, lines 4 – 20).

With regard to claim 6, Taguchi discloses a data reproduction method wherein state is one of a peak, a center, and a bottom portion (see figure 2b, where this is interpreted as equivalent).

With regard to claims 7, and 13 Taguchi discloses an apparatus (see Figure 4) for the reproduction of magneto-optical signals utilizing the method of claim 1, and therefore it would have been obvious considering the aforementioned rejection of claim 1.

With regard to claims 8, 11, and 12 Taguchi discloses an apparatus (see Figure 4) for the reproduction of magneto-optical signals utilizing the method of claims 2, 5, and 6 respectively and therefore it would have been obvious considering the aforementioned rejection of claims 2, 5, and 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi ('772).

With regard to claim 3, Taguchi discloses a data reproduction method wherein calculating step includes the steps of: judging state according to state signal (see column 12, lines 47 – 63); and calculating average value of reproduction signal in state judged by step of judging (see column 12, lines 32 – 41; column 13, line 56 – column 14, line 19). Taguchi does not use the term judging to describe his operation, however, it appears that his operation does perform a judgment based on operational description and would have been obvious to one of ordinary skill in the art.

With regard to claim 9, Taguchi discloses an apparatus (see Figure 4) for the reproduction of magneto-optical signals utilizing the method of claim 3, and therefore it would have been obvious considering the aforementioned rejection of claim 3.

Other Cited Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2637

Hayashi (US-5,556,155) discloses a Viterbi decoder operable with an expected value circuit.

Shieh (US-6,674,816) discloses a Viterbi decoder operable to follow DC offsets.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM
10/19/05



TCB JACOB MEK
EXAMINER

TEMESON BRETTIN SAE
PRIMARY EXAMINER